

CROSSFLOW THROMBECTOMY CATHETER AND SYSTEM

Cross stream ABSTRACT OF THE DISCLOSURE

~~Crossflow~~ thrombectomy catheter and system for fragmentation and removal of thrombus or other material from blood vessels or other body cavities. High velocity saline jets emitted from a toroidal loop jet emanator or other jet emanator in a catheter distal end entrain fluid through inflow orifices, and with flow resistances create a back-pressure which drives crossflow streams through outflow orifices in a radial direction and thence radially and circumferentially to apply normal and drag forces on thrombotic deposits or lesions in the blood vessel or other body cavity, thereby breaking apart and transporting thrombus particles to be entrained through the inflow orifices, whereupon the high velocity jets macerate the thrombus particles which then transit an exhaust lumen or recirculate again via the outflow orifices.

POSSIS - CROSSFLOW
THROMBECTOMY CATHETER
10-08-99 10:45 AM
DOC\PAT\P355

CROSSFLOW THROMBECTOMY CATHETER AND SYSTEM

PARTS LIST

10	crossflow thrombectomy catheter		
		44	hypo-tube
10A	crossflow thrombectomy catheter	45	polymeric tube
11	threaded high pressure connection	46	toroidal loop jet emanator
12	manifold	48	marker coil
14	hemostasis unit	50	circular space
		51	guidewire
16	Luer fitting		
18	manifold branch	52	distal tip (of exhaust tube)
20	Luer connection		
22	manifold branch	54	closely wound portion
		56	loosely wound portion
24	Luer fitting		
		57	interior wall
26	strain relief	58	interior wall
28	exhaust tube		
		59	proximal area
30	proximal end		
		60a-n	jet orifices
32	outflow orifice		
34	inflow orifice	62	semi-toroidal loop jet emanator
36	tapered and flexible tip assembly	64a-n	jet orifices
37	tapered tube	66	semi-circular space
38	distal end	68	L-shaped jet emanator
40	jet body	70	jet orifice
41	lumen	72	J-shaped jet emanator
42	exhaust lumen		
		74a-n	jet orifices
43	reduction		

75	J-shaped jet emanator	100	inflow orifice
76	blood vessel	102	high velocity jet
77	jet orifice	104	outflow orifice
78	thrombotic deposit or lesion	106	crossflow jet
79	extreme end	108	tip
80	high velocity jets	110	inflow orifice
81	J-shaped jet emanator	112	curved surface
82	crossflow jets	114	distal end
83	jet orifice	115	bore
84	distal end	118	high velocity jet
85	orifice	122	distal end
86	inflow end	124	tip
87	extreme end	126	bore
88	outflow end	128	toroidal loop jet emanator
89	necked-down portion	130a-n	jet orifices
90	distal end	132	inflow orifice
91	J-shaped jet emanator	134a-n	high velocity jets
92	tip	136	circular space
93	housing	137	tube
94	bore	138	distal end
95	orifice member	140	jet body
96	U-shaped jet emanator	142	jet
97		143	lumen
98	jet orifice	144	guidewire